NASA Glenn Success Stories

Hybrid Power Management (GRC) Program Develops Original Photovoltaic Power Station

JME, Inc.

TECHNOLOGY

Hybrid Power Management (HPM) is the art of combining diverse power devices in an optimal configuration for space and terrestrial applications. The ultracapacitor has an extremely long life, excellent low temperature characteristics, and is rugged, reliable, and maintenance free. This is ideal for power systems.

Photovoltaic power systems can be greatly improved through the application of Hybrid Power Management (HPM).

COMMERCIAL APPLICATION

◆ Applications include power generation, transportation, biotechnology, and space power systems.

◆Capacitors have been used at the NASA Glenn Research Center to replace led acid batteries as a backup for the solar cells

SOCIAL / ECONOMIC BENEFIT

◆ HPM has the potential to significantly alleviate global energy concerns, improve the environment, and stimulate the economy.

◆Equal the life span of the solar cells

◆ Capacitors are made from environmentally green materials, eliminating the need for disposal of lead acid batteries

NASA APPLICATIONS

◆ HPM provides reliable, long life energy storage systems essential for aeronautic and deep space missions. HPM also provides safe energy storage for drop tower research.

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